

## CLAIMS:

1. An imaging apparatus, comprising:
  - a plurality of groups of photosensors;
  - a first output line for accepting signals from a first subset of groups of photosensors;
  - a second output line for accepting signals from a second subset of groups of photosensors; and
  - connection means, associated with each group of photosensors, for selectably operating the group of photosensors as effectively one photosensor.
2. The apparatus of claim 1, wherein the first subset of groups of photosensors is substantially evenly distributed along a linear array.
3. The apparatus of claim 2, wherein the first subset of groups of photosensors is substantially interleaved with the second subset of groups of photosensors along the linear array.
4. The apparatus of claim 1, each group of photosensors including at least two photosensors disposed along a direction of a linear array.
5. The apparatus of claim 1, the connection means including at least one switch interposed between two photosensors in the group of photosensors.

6. The apparatus of claim 1, further comprising

high-resolution means for selectably transferring signals from a first photosensor in each group to the first output line, and transferring signals from a second photosensor in each group to the second output line.

7. The apparatus of claim 7, the high-resolution means including a shift register having a plurality of stages, each of at least two photosensors within a group being associated with a shift register stage.

8. A method of operating an imaging apparatus, the apparatus including a plurality of groups of photosensors, a first output line, and a second output line, comprising the steps of:

in a first mode, transferring signals from a first subset of groups of photosensors to the first output line, and transferring signals from a second subset of groups of photosensors to the second output line; and

in a second mode, for each of a plurality of groups of photosensors, transferring signals from a first photosensor in the group to the first output line, and transferring signals from a second photosensor in the group to the second output line.

9. The method of claim 8, wherein the first mode corresponds to a low-resolution operation and the second mode corresponds to a high-resolution operation.

10. The method of claim 8, further comprising

in the first mode, effectively connecting at least two photosensors in the group to form a single photosensor.

11. The method of claim 8, wherein the first subset of groups of photosensors is substantially evenly distributed along a linear array.

12. The method of claim 11, wherein the first subset of groups of photosensors is substantially interleaved with the second subset of groups of photosensors along the linear array.

13. The method of claim 8, wherein the apparatus includes a shift register having a plurality of stages, and each of at least two photosensors within a group is associated with a shift register stage.

14. The method of claim 13, further comprising  
in the first mode, operating the shift register so that, for a plurality of groups of photosensors, only one shift register stage effectively operates the group.